



## Invisible Threat In Sport Bag: Esophageal Obstruction Due To Aminoacid Tablets

### Spor Çantasındaki Görünmez Tehlike: Aminoasit Tablet'lere Bağlı Özofajiyal Obstrüksiyon

Özefagus Yabancı Cisimleri ve Aminoasit Tabletleri / Esophageal Foreign Bodies and Amino Acid Tablets

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#### Özet

Özofagus yabancı cisimleri çoğunlukla çocuklarda görülmeye rağmen, yetişkinlerde de hayatı tehdit eden sorunlara neden olabilir. Oluşabilecek ciddi komplikasyonlar nedeniyle özofagusta yabancı cisim tanısı konar konmaz derhal çıkarılmalıdır. Bu olgu sunumunda acil servisimize iki adet aminoasit tablet alımı sonrası boğazda tikanıklık hissiyle başvuran 30 yaşındaki erkek hasta tartışılmıştır. İlk değerlendirme sonrası yapılan endoskopide özofagus alt lumeninin bu tabletlerle obstrükte olduğu görülmüş ve endoskopik olarak çıkarılmıştır. Son yıllarda artan aminoasit tablet kullanımının ciddi komplikasyonlara neden olabileceği ifade etmek için bu olguya paylaşmak istedik.

#### Anahtar Kelimeler

Aminoasit Tablet; Özofagus; Yabancı Cisim

#### Abstract

Although esophageal foreign bodies are mostly encountered in children, they also continue to constitute a life threatening problem in adults. Because of severe complications possibly to occur, esophageal foreign bodies should be extracted as soon as the diagnosis is made. A 30 year-old male patient who had a sense of blockage in the throat after taking two amino acid tablets and who was admitted to our emergency room and was discussed in this case report. In endoscopy performed with the initial diagnosis of esophageal foreign body, two attached tablets which completely obstruct lower lumen were removed immediately below the upper esophageal sphincter. In recent years, we wanted to share this case in order to express that increasing amino acid tablet usage will lead to serious complications.

#### Keywords

Amino Acid Tablets; Esophagus; Foreign Bodies

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## Introduction

Esophageal foreign bodies (EFB) constitute a problem often encountered in both children and adults, which leads to severe morbidity and mortality. In the United States, approximately 1,500 deaths per year are attributed to the ingestion of foreign bodies.

The most commonly seen symptoms and findings in esophageal foreign bodies include dysphagia, odynophagia, tenderness in neck, feeling of congestion and sticking something, increased secretion and tracheal aspiration due to esophageal obstruction [1].

These foreign bodies generally comprise of toys, coins, and pen points in children whereas in adults pieces of a bone and food like meat [2]. In our literature review, amino acid tablets have not been found among EFB so far. Our case is first of its kind in this sense.

Most of the foreign bodies pass through the gastrointestinal tract spontaneously without complications. Approximately 10-20% of them require special intervention with endoscopy. Surgical intervention is needed in 1% of patients with foreign bodies [3]. Because severe complications, are possible to occur, esophageal foreign bodies should be extracted as soon as the diagnosis is made.

## Case Report

A 30-year-old male patient referred to the emergency service with complaints of feeling of something stuck in his throat and the water he drank coming out of his mouth. He stated that he took amino acid tablets as an additional food supplement prior to exercise while he was body-building. Before he was referred to the emergency service, he took two of these tablets and immediately afterwards obliged continually to drink water due to the feeling of something stuck in his throat and the water he drank came out of his mouth.

In physical examination the patient assumed an unsettled appearance. Respiratory, cardiovascular and abdominal examinations were all normal. Lung and airway graphs taken were assessed as normal. In endoscopy performed with the initial diagnosis of esophageal foreign body, two attached tablets which completely occlude lower lumen were detected immediately below the upper esophageal sphincter (Figure I). This compound was retrieved via a snare device and pushed towards the distal (Figure II). The patient was discharged with recommendations as no complication was considered to occur.

## Discussion

Except the appendix, the narrowest site of the gastrointestinal system is esophagus and thus foreign bodies of gastrointestinal system are mostly observed in the esophagus [4]. Many foreign bodies pass through gastrointestinal system without any impaction. However, some of them may become lodged at the sites of natural and pathological narrowings in the esophagus with respect to its size and shape. Foreign bodies become lodged mostly at the site of cricopharyngeal narrowing at C6 level [4]. In our case, a foreign body was detected immediately below the upper esophageal sphincter. Likewise, in the series by Kabakkaya et.al, localization was made in the first narrowing in 74% of cases [5].

Foreign bodies in the esophagus lead to anxiety and discomfort in patients. The most commonly seen symptoms and findings in esophageal foreign bodies include dysphagia, odinophagia, feeling of congestion and something stuck, increase in secre-

tion and tracheal aspiration due to esophageal obstruction. Patients may end up with inability to swallow their own secretions. Any lodgment in the esophagus may lead to airway obstruction. Perforation may occur due to direct mechanical erosion or chemical erosion as in the swallowing of a battery. Stricture, mediastinitis, cardiac tamponade, paraesophageal abscess and fistula formation may be observed.

EFB may be so diverse. In literature studies, coins have been reported as the most frequently extracted esophageal foreign bodies [6]. EFB may comprise a great variety of components. Coins have been reported as the most commonly observed esophageal foreign bodies in childhood whereas organic components (meat, bone, tooth etc) in adulthood.

Most of sportsmen especially dealing with sports requiring strength tend to meet their protein requirements by taking amino acid tablets. Therefore, such drugs which may be obtained without a prescription are commonly used worldwide. In literature, drugs containing different active substances and their various complications have been reported among esophageal foreign bodies [7]. Nonetheless, there exists no publication concerning amino acid tablets and their effects in the esophagus. Early diagnosis and treatment of EFB are vital for the prevention of severe and life threatening circumstances possibly to occur. It may be stated that as in our case, amino acid tablets coming into contact with water may swell and thus may lead to an occlusion in the esophagus. The use of amino acid tablets is considered as a harmless dietary supplement. However, it should be noted that multiple amino acid supplements may lead to severe complications.

## Competing interests

The authors declare that they have no competing interests.

## References

1. Khan MA, Hameed A, Choudhry AJ. Management of foreign bodies in the esophagus. *J Coll Physicians Surg Pak* 2004;14(4):218-20.
2. Webb WA. Management of foreign bodies of the upper gastrointestinal tract. *Gastrointest Endosc* 1995;41(1):39-51.
3. Eisen GM, Baron TH, Dominitz JA. et al. Guideline for the management of ingested foreign bodies. American Society for Gastrointestinal Endoscopy. *Gastrointest Endosc* 2002;55(7):802-6.
4. Brady PG. Esophageal foreign bodies. *Gastroenterol Clin North Am* 1991;20(4):691-701.
5. Kabakkaya Y, Gökcé G, Doğan M. KBB'de yabancı cisimler. *Türk Otolaringoloji Arşivi* 1993;31(2):113-7.
6. Nadir A, Sahin E, Nadir I. et al. Esophageal foreign bodies: 177 cases. *Dis Esophagus* 2011;24(1):6-9.
7. Wisniewski RM, Stone DD, Fang JC. An esophageal foreign body impaction from a Tums E-X tablet. *Gastrointest Endosc* 1997;45(6):518-21.